

IN THE CLAIMS

The following list, if entered, replaces all prior versions of the claims.

1.- 12. (Cancelled)

13. (Previously Presented) A method, comprising:
receiving a packet via a virtual network device link, the packet comprising a unicast destination address, wherein
the virtual network device link couples a first virtual network device sub-unit and a second virtual network device sub-unit, and wherein
the first virtual network device sub-unit and the second virtual network device sub-unit are configured to operate as a single virtual network device within a network, and
the virtual network device is configured to perform Layer 2 forwarding to forward the packet to one or more network devices within the network; and
performing an egress lookup for the packet in response to the receiving the packet, wherein
the performing the egress lookup in a lookup table on a first line card comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card.

14. (Original) The method of claim 13, wherein
a header associated with the packet is also received via the virtual network device link, the header comprises a destination identifier.

15. (Previously Presented) The method of claim 14, further comprising:
sending the packet and the header to the second line card if the non-primary entry
corresponding to the unicast destination address is found during the egress
lookup.
16. (Previously Presented) The method of claim 14, further comprising:
if a primary entry corresponding to the unicast destination address is found during the
egress lookup:
sending the packet from an interface on the first line card identified by the
primary entry.
17. (Original) The method of claim 16, further comprising:
sending a notification via the virtual network device link if the destination identifier
comprised in the header does not match a destination identifier comprised in the
primary entry, wherein
the notification identifies the unicast destination address as corresponding to the
destination identifier comprised in the primary entry.
18. (Original) The method of claim 16, wherein
the packet is only sent from the interface if the interface is not comprised in an uplink
interface bundle.
19. (Previously Presented) The method of claim 13, further comprising:
receiving a second packet, the second packet comprising a multicast destination address;
and
sending at most one copy of the second packet to one of the two virtual network device
sub-units via the virtual network device link.

20. (Original) The method of claim 19, further comprising:
receiving a third packet via the virtual network device link, the third packet comprising a
second multicast destination address; and
replicating the third packet for each of a plurality of outgoing VLANs (Virtual Local
Area Networks) associated with the second multicast destination address.
21. (Original) The method of claim 20, further comprising:
sending at least one copy of the third packet to each line card that includes an interface
associated with one of the outgoing VLANs.
22. (Original) The method of claim 20, further comprising:
sending at least one copy of the third packet to each line card that includes an interface
associated with an incoming VLAN, wherein
the third packet is being conveyed in the incoming VLAN.
23. (Original) The method of claim 20, further comprising:
sending at most one copy of the third packet to each line card that includes an interface
associated with one of the outgoing VLANs.

24. **(Currently Amended)** A method comprising:
receiving a packet via a virtual network device link; **and**
performing one of an ingress lookup and an egress lookup in a lookup table on a first line card for the packet, wherein
the ingress lookup is performed for the packet if the packet includes a multicast destination address[[]] ,
the egress lookup is performed for the packet if the packet includes a unicast destination address, wherein
the performing the egress lookup comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card[[]] , and
a primary entry can be allocated in the lookup table in response to an ingress lookup but not in response to an egress lookup, wherein the primary entry indicates an interface on the first line card.
25. **(Original)** The method of claim 24, wherein
the packet includes a multicast destination address, and
the method further comprises:
replicating the packet for each of a plurality of outgoing VLANs associated with the multicast destination address.
26. **(Original)** The method of claim 25, further comprising:
sending at least one copy of the packet to each line card that includes an interface associated with one of the outgoing VLANs.
27. **(Original)** The method of claim 25, further comprising:
sending at most one copy of the packet to each line card that includes an interface associated with one of the outgoing VLANs.

28. (Original) The method of claim 25, further comprising:
not sending any copy of the packet via the virtual network device link.
29. (Original) The method of claim 25, further comprising:
not sending any copy of the packet via an uplink interface comprised in a uplink interface bundle.
30. (Previously Presented) The method of claim 24, wherein
a header associated with the packet is also received via the virtual network device link,
the header comprises a destination identifier, and
the packet comprises the unicast destination address, and
the method further comprises:
 sending the packet and the header to the second line card if a non-primary entry
 corresponding to the unicast destination address is found during the egress
 lookup.
31. (Previously Presented) The method of claim 30, further comprising:
if a primary entry corresponding to the unicast destination address is found during the
egress lookup:
 sending the packet from an interface identified on the first line card by the
 primary entry corresponding to the unicast destination address.
32. (Previously Presented) The method of claim 31, further comprising:
sending a notification via the virtual network device link if a destination identifier
comprised in the header does not match a destination identifier comprised in the primary entry
corresponding to the unicast destination address, wherein
 the notification identifies the unicast destination address as corresponding to the
 destination identifier comprised in the primary entry corresponding to the unicast
 destination address.

33. (Original) The method of claim 30, wherein the packet is only sent from the interface if the interface is not comprised in a uplink interface bundle.
34. **(Currently Amended)** A system comprising:
 an interface to a virtual network device link, wherein
 the interface is configured to receive a packet,
 the virtual network device link couples a first virtual network device sub-unit and
 a second virtual network device sub-unit, **and**
 the first virtual network device sub-unit and the second virtual network device
 sub-unit are configured to operate as a single virtual network device
 within a network, and
 the virtual network device is configured to perform Layer 2 forwarding to forward
 the packet to one or more network devices within the network; and
 a distributed forwarding module coupled to the interface, wherein
 the distributed forwarding module is configured to perform one of an ingress
 lookup and an egress lookup in a lookup table on a first line card for the
 packet, wherein
 the distributed forwarding module is configured to perform an ingress
 lookup for the packet if the packet includes a multicast destination
 address, **and**
 the distributed forwarding module is configured to perform an egress
 lookup for the packet if the packet includes a unicast destination
 address, wherein performing of the egress lookup comprises
 allocating a non-primary entry corresponding to a source address
 of the packet in the lookup table, if an entry corresponding to the
 source address has not already been allocated, wherein the non-
 primary entry indicates a second line card[[:]] , and
 a primary entry can be allocated in the lookup table in response to an
 ingress lookup but not in response to an egress lookup, wherein the
 primary entry indicates an interface on the first line card.

35. (Cancelled)

36. (Original) The system of claim 34, wherein
the packet includes a multicast destination address, and
the distributed forwarding module is configured to replicate the packet for each of a
plurality of outgoing VLANs associated with the multicast destination address.

37. (Previously Presented) The system of claim 34, further comprising:
one or more line cards, wherein
the distributed forwarding module is configured to send at least one copy of the packet to
each of the one or more line cards that includes an interface associated with one
of the outgoing VLANs.

38. (Previously Presented) The system of claim 34, further comprising:
one or more line cards, wherein
the distributed forwarding module is configured to send at most one copy of the packet to
each line card that includes an interface associated with one of the outgoing
VLANs.

39. (Previously Presented) The system of claim 34, further comprising:
a second interface configured to receive a second packet, wherein
the second packet comprises a second multicast address, and
the distributed forwarding module is configured to send at most one copy of the
second packet via the virtual network device link.

40. (Previously Presented) The system of claim 34, wherein a header associated with the packet is also received via the virtual network device link, the header comprises a destination identifier, and the packet comprises the unicast destination address, and the distributed forwarding module is configured to send the packet and the header to the second line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.
41. (Previously Presented) The system of claim 40, further comprising: a second interface on the first line card, wherein the distributed forwarding module is configured to send the packet from the second interface if a primary entry corresponding to the unicast destination address is found during the egress lookup and if the primary entry corresponding to the unicast destination address identifies the second interface.
42. (Previously Presented) The system of claim 41, wherein the distributed forwarding module is configured to send a notification via the virtual network device link if a destination identifier comprised in the header does not match a destination identifier comprised in the primary entry corresponding to the unicast destination address, and the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry corresponding to the unicast destination address.
43. – 49. (Cancelled)

50. (Previously Presented) A system comprising:
means for receiving a packet via a virtual network device link, the packet comprising a unicast destination address, wherein
the virtual network device link couples a first virtual network device sub-unit and a second virtual network device sub-unit, and wherein
the first virtual network device sub-unit and the second virtual network device sub-unit are configured to operate as a single virtual network device within a network, and
the virtual network device is configured to perform Layer 2 forwarding to forward the packet to one or more network devices within the network; and
means for performing an egress lookup for the packet in a lookup table on a first line card in response to receipt of the packet, wherein
the means for performing the egress lookup comprises means for allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card.

51. (Original) The system of claim 50, wherein
a header associated with the packet is also received via the virtual network device link, the header comprises a destination identifier obtained by performing an ingress lookup for the packet.

52. (Previously Presented) The system of claim 51, further comprising:
means for sending the packet and the header to the second line card if the non-primary entry corresponding to the unicast destination address is found during the egress lookup.

53. (Previously Presented) The system of claim 51, further comprising:
means for sending the packet from an interface on the first line card identified by a
primary entry, if the primary entry corresponding to the unicast destination
address is found during the egress lookup.
54. (Original) The system of claim 53, further comprising:
means for sending a notification via the virtual network device link if the destination
identifier comprised in the header does not match a destination identifier
comprised in the primary entry, wherein
the notification identifies the unicast destination address as corresponding to the
destination identifier comprised in the primary entry.
55. (Original) The system of claim 53, wherein
the packet is only sent from the interface if the interface is not comprised in an uplink
interface bundle.
56. (Previously Presented) The system of claim 51, further comprising:
means for receiving a second packet, the second packet comprising a multicast
destination address; and
means for sending at most one copy of the second packet to one of the two virtual
network device sub-units via the virtual network device link.
57. – 63. (Cancelled)

64. (Previously Presented) A non-transitory computer readable medium storing a program, the program comprising program instructions executable to:

- detect reception of a packet via a virtual network device link, the packet comprising a unicast destination address, wherein
- the virtual network device link couples a first virtual network device sub-unit and a second virtual network device sub-unit, and wherein
- the first virtual network device sub-unit and the second virtual network device sub-unit are configured to operate as a single virtual network device within a network, and
- the virtual network device is configured to perform Layer 2 forwarding to forward the packet to one or more network devices within the network; and

perform an egress lookup for the packet in response to receipt of the packet, wherein performing the egress lookup in a lookup table on a first line card comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card.

65. (Original) The computer readable medium of claim 64, wherein a header associated with the packet is also received via the virtual network device link, the header comprises a destination identifier.

66. (Previously Presented) The computer readable medium of claim 65, wherein the program instructions are further executable to:

- send the packet and the header to the second line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.

67. (Previously Presented) The computer readable medium of claim 65, wherein the program instructions are further executable to:

send the packet from an interface on the first line card identified by a primary entry, if the primary entry corresponding to the unicast destination address is found during the egress lookup.

68. (Original) The computer readable medium of claim 67, wherein the program instructions are further executable to:

send a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.

69. (Original) The computer readable medium of claim 67, wherein the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

70. (Original) The computer readable medium of claim 65, wherein the program instructions are further executable to:

detect reception of a second packet, the second packet comprising a multicast destination address; and

send at most one copy of the second packet to a virtual network device sub-unit via a virtual network device link, the virtual network device sub-unit comprised in a virtual network device.